

Atty Docket: 4081-01701
(09/660,450US1)

Patent

AMENDMENTS TO THE CLAIMS

Listing Of Claims:

1. (Currently Amended) A product made by a process comprising coupling of an initial olefin and a second olefin, wherein the product of the process comprises (a) ~~mixed~~-dimers, from about ~~30-27~~ to about ~~85-81~~ weight percent of which are linear ~~alpha-olefin~~internal dimers and (b) ~~less than from about 18.5 to~~ about 80 weight percent initial and second olefins.
2. (Currently Amended) The product of claim 1 wherein the coupling is a head to head coupling accomplished by a 1,2 insertion in the initial olefin followed by a 2,1 insertion in the second olefin resulting in a complex which beta-eliminates to produce the linear internal dimers.
3. (Previously presented) The product of claim 2 wherein the coupling further results in byproducts comprising methyl-branched olefin dimers.
4. (Previously presented) The product of claim 3 wherein the byproducts of the process further comprise olefin trimers.
5. (Currently Amended) The product of claim 2 ~~wherein the mixed dimers comprise~~ further comprising less than about five weight percent vinylidene or tri-substituted olefins.
6. (Previously presented) The product of claim 2 wherein the coupling further results in byproducts comprising vinylidene.
7. (Previously presented) The product of claim 1 wherein the initial olefin is butene and the second olefin is butene and the dimer is a 1-butene dimer.
8. (Previously presented) The product of claim 1 wherein the initial olefin and the second olefin are selected from the group consisting of alpha olefins consisting of about five to about eight carbon atoms.

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9. (Previously presented) The product of claim 1 wherein the initial olefin and the second olefin are selected from the group consisting of alpha olefins consisting of about nine or more carbon atoms.

10-18 (Canceled)

19. (Previously presented) A feedstock for the production of oxoalcohols comprising the product of claim 1.

20-28 (Canceled)

29. (Currently Amended) The product of claim 1 wherein the ~~mixed~~-dimers comprise equal to or greater than about 60 weight percent linear ~~alpha-olefin~~internal dimers.

30. (Currently Amended) The product of claim 1 ~~wherein the mixed dimers comprise~~ further comprising less than about five weight percent vinylidene or tri-substituted olefins.

31. (Currently Amended) A product made by a process comprising coupling of an initial olefin and a second olefin, wherein the product comprises (a) ~~mixed dimers~~, less than about five weight percent ~~of which are~~ vinylidene or tri-substituted olefins and (b) ~~less than~~from about 18.5 to about 80 weight percent initial and second olefins.

32. (Previously presented) The product of claim 31 wherein the initial olefin is butene and the second olefin is butene and the dimers are 1-butene dimers.

33. (Previously presented) The product of claim 31 wherein the initial olefin and the second olefin are selected from the group consisting of alpha olefins consisting of about five to about eight carbon atoms.

34. (Previously presented) The product of claim 31 wherein the initial olefin and the second olefin are selected from the group consisting of alpha olefins consisting of about nine or more carbon atoms.

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35. (Currently Amended) The product of claim 31 wherein the ~~mixed~~-dimers comprise from about ~~30-27~~ to about 85-81 weight percent linear ~~alpha-olefin~~internal dimers.
36. (Currently Amended) A product of a head to head coupling of a 1,2 insertion of a first olefin having at least 4 carbon atoms with a 2,1 insertion of a second olefin having at least 4 carbon atoms, the product comprising (a) ~~mixed dimers~~, less than about 5 weight percent ~~of which are~~ vinylidene or tri-substituted olefins and (b) ~~less than~~from about 18.5 to about 80 weight percent first and second olefins.
37. (Currently Amended) The product of ~~claim 29~~ claim 36 wherein the first and second olefins are butene.
38. (Currently Amended) The product of ~~claim 29~~ claim 36 wherein the first and second olefins have from 5 to about 8 carbon atoms.
39. (Currently Amended) The product of ~~claim 29~~ claim 36 wherein the first and second olefins have 9 or more carbon atoms.
40. (Currently Amended) The product of ~~claim 29~~ claim 36 wherein the ~~mixed~~-dimers comprise from about ~~30-27~~ percent to about 85-81 percent linear ~~alpha-olefin~~internal dimers.
41. (Currently Amended) The product of ~~claim 29~~ claim 36 wherein the ~~mixed~~-dimers comprise equal to or greater than about 60 percent linear ~~alpha-olefin~~internal dimers.
42. (Currently Amended) The product of ~~claim 29~~ claim 36 wherein the ~~mixed~~-dimers comprise equal to or greater than about 70 percent linear ~~alpha-olefin~~internal dimers.
43. (Currently Amended) A product of a head to head coupling of a 1,2 insertion of a first olefin having at least 4 carbon atoms with a 2,1 insertion of a second olefin having at least 4 carbon atoms, the product comprising (a) ~~mixed~~-dimers, from about ~~30-27~~ to about 85-81 weight percent

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of which are linear ~~alpha-olefin~~internal dimers and (b) ~~less than~~from about 18.5 to about 80 weight percent first and second olefins.